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(54) MOLD MATERIAL FOR CASTING MOLTEN METAL

(57) Abstract:

PURPOSE: To provide a mold material for casting molten metal having easy working and being suitable to trial production by using carbon porous body carbonizing phenol resin foam body and having the specific value of bulk density as the mold material.

CONSTITUTION: The creamy phenol resin prepolymer composition, obtd. by mixing and stirring raw material composed of resol type phenol resin, foaming agent and

hardening agent, etc., at once or in serial, is foamed and hardened and burnt at  $\leq 600^{\circ}\text{C}$  and desirably  $\leq 900^{\circ}\text{C}$  under non-oxidizing or slightly oxidizing atmosphere. The burning temp. can do at  $\leq 1800^{\circ}\text{C}$ . The carbon porous body obtd. in such way is in the range of 0.1-0.8g/cm<sup>2</sup> the bulk density to obtain the excellent mold material for casting the molten metal. By this invention, a thin casting product having excellent dimensional accuracy and casting surface and little internal stress can be manufactured.

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